

Phosphate Ester Hydraulic Fluid Acid / Water Removal Filtration System

Specification:

Filtration system designed to reduce the total acidity number (TAN) and to remove water from a phosphate ester hydraulic fluid. The filtration system shall be a palletized system delivered to the Government in a ready to operate condition. The system shall include a one gallon per minute, 120 VAC, pump rated for service with a phosphate ester fluid, and 4 carbon steel filter housings with differential pressure gages to measure the pressure drop from the inlet of the housings to the outlet of the housings. The first three housings shall contain six HILCO model ET718-DR-03ZXCO or equal, ion exchange resin filters (two per housing) to remove acid from the fluid as it flows through the elements. The requirement for the system is that the existing 700 gallon reservoir shall have the TAN reduced from 4.43 to 1.5 via the ion exchange resin filters. The last of the four filter housings shall contain two Hilco PD718-03-CN filters to remove water and particulates from the fluid. It is estimated that to achieve the required acidity reduction that 18 total ion exchange resin filter elements will be required. The palletized system shall be delivered with a total of 24 ET718-DR-03ZXCO filters so that the facility can continue to utilize the system in the future.

The palletized filtration system shall require only 120 VAC at less than 20 amps for operation. NASA will provide an inlet isolation valve for connection of the pump inlet and an outlet isolation valve to connect to the filter outlet to return the conditioned fluid to the reservoir